	Application No.	Applicant(s)
Notice of Allowability	09/732,089	MILLER ET AL.
	Examiner	Art Unit	
	Hussein A. El-chanti	2157	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to _3/8/2006_.

2. ☒ The allowed claim(s) is/are _33,36,40-43,57-63,65 and 70-75_.

3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☐ All   b) ☐ Some*   c) ☐ None of the:

      1. ☐ Certified copies of the priority documents have been received.

      2. ☐ Certified copies of the priority documents have been received in Application No. _____ .

      3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

    * Certified copies not received: _____ .

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application. **THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.

5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.

    (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached

      1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____ .

    (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____ .

    Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)

2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)

3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _3/06_

4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material

5. ☐ Notice of Informal Patent Application (PTO-152)

6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____ .

7. ☒ Examiner's Amendment/Comment

8. ☒ Examiner's Statement of Reasons for Allowance

9. ☐ Other _____ .

ABDULLAHI SALAD
PRIMARY EXAMINER

EXAMINER'S AMENDMENT

1.   This action is responsive to RCE received on March 8, 2006.

2.   An examiner's amendment to the record appears below. Should the changes

and/or additions be unacceptable to applicant, an amendment may be filed as provided

by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be

submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview

with Richard Boucher on April 7, 2006.

3.   The application has been amended as follows:

-      **In the specification**, the full paragraph starting on page 8 lines 1 and ending on

page 9 line 17 has been replaced by:

- Application Serial No. 09/731,560, issued as Patent No. 6,774,919, entitled "An Interface and Related Methods for Reducing Source Accesses in a Development System", naming Daniel J. Miller and Eric H. Rudolph as inventors, and bearing attorney docket number MS1-643US;

- Application Serial No. 09/732,084, issued as Patent No. 6,834,390, entitled "A System and Related Interfaces Supporting the Processing of Media Content", naming Daniel J. Miller and Eric H. Rudolph as inventors, and bearing attorney docket number MS1-629US;

- Application Serial No. 09/731,490, issued as Patent No. 6,983,466, entitled "A System and Related Methods for Reducing Source Filter Invocation in a Development Project", naming Daniel J. Miller and Eric H. Rudolph as inventors, and bearing attorney docket number MS1-631US;

- Application Serial No. 09/732,452, entitled "A System and Related Methods for Reducing Memory Requirements of a Media Processing System", naming Daniel J. Miller and Eric H. Rudolph as inventors, and bearing attorney docket number MS1-632US;

- Application Serial No. <u>09/731,529, issued as Patent No. 6,961,943</u>, entitled "A System and Related Methods for Reducing the Instances of Source Files in a Filter Graph", naming Daniel J. Miller and Eric H. Rudolph as inventors, and bearing attorney docket number MS1-633US;
- Application Serial No. <u>09/732,087, issued as Patent No. 6,959,438</u>, entitled "An Interface and Related Methods for Dynamically Generating a Filter Graph in a Development System", naming Daniel J. Miller and Eric H. Rudolph as inventors, and bearing attorney docket number MS1-634US;
- Application Serial No. <u>09/732,090, issued as Patent No. 6,611,215</u>, entitled "A System and Related Methods for Processing Audio Content in a Filter Graph", naming Daniel J. Miller and Eric H. Rudolph as inventors, and bearing attorney docket number MS1-639US;
- Application Serial No. <u>09/732,085</u>, entitled "A System and Methods for Generating an Managing Filter Strings in a Filter Graph", naming Daniel J. Miller and Eric H. Rudolph as inventors, and bearing attorney docket number MS1-642US;
- Application Serial No. <u>09/731,491, issued as Patent No. 6,768,499</u>, entitled "Methods and Systems for Processing Media Content", naming Daniel J. Miller and Eric H. Rudolph as inventors, and bearing attorney docket number MS1-640US;
- Application Serial No. <u>09/731,563, issued as Patent No. 6,954,581</u>, entitled "Systems for Managing Multiple Inputs and Methods and Systems for Processing Media Content ", naming Daniel J. Miller and Eric H. Rudolph as inventors, and bearing attorney docket number MS1-635US;
- Application Serial No. <u>09/731,892, issued as Patent No. 6,912,717</u>, entitled "Methods and Systems for Implementing Dynamic Properties on Objects that Support Only Static Properties", naming Daniel J. Miller and David Maymudes as inventors, and bearing attorney docket number MS1-638US;
- Application Serial No. <u>09/731,581</u>, entitled "Methods and Systems for Effecting Video Transitions Represented By Bitmaps", naming Daniel J. Miller and David Maymudes as inventors, and bearing attorney docket number MS1-637US;
- Application Serial No. <u>09/732,372, issued as Patent No. 6,882,891</u>, entitled "Methods and Systems for Mixing Digital Audio Signals", naming Eric H. Rudolph as inventor, and bearing attorney docket number MS1-636US; and
- Application Serial No. <u>09/732,086</u>, entitled "Methods and Systems for Processing Multi-media Editing Projects", naming Eric H. Rudolph as inventor, and bearing attorney docket number MS1-641US.

-      Claims 1-32, 34, 35, 37-39, 44-56, 64 and 66-69 are **canceled**.

-      **33. (Currently amended)** A multi-media editing system comprising:

a first software-implemented matrix switch comprising one or more <u>first</u> input pins

and one or more <u>first</u> output pins, the one or more <u>first</u> input pins being routable to the

one or more <u>first</u> output pins, the first matrix switch being configured to process one or

more uncompressed data streams and output an uncompressed <u>output</u> data stream;

a second software-implemented matrix switch comprising one or more <u>second</u>

input pins and one or more <u>second</u> output pins, the one or more <u>second</u> input pins being

routable to the one or more <u>second</u> output pins, the second matrix switch being

configured to process one or more compressed data streams and output a compressed

<u>output</u> data stream; and

a third software-implemented matrix switch comprising multiple <u>third</u> input pins

and multiple <u>third</u> output pins, the <u>multiple third</u> input pins being routable to the <u>multiple</u>

<u>third</u> output pins, the third matrix switch being configured to receive [[an]] <u>the</u>

uncompressed <u>output</u> data stream from the first switch and [[a]] <u>the</u> compressed <u>output</u>

data stream from the second switch and process the [[received data]] <u>uncompressed</u>

<u>output and the compressed</u> <u>output</u> streams to provide a single compressed output data

stream that represents a user-defined multi-media editing project in which a user can

construct said editing project by operating one or more sources of multimedia content

that provide said <u>one or more uncompressed and said one or more compressed</u> data

streams,

wherein at least one of said <u>first, second and third</u> matrix switches comprises a

scalable plurality of <u>said first, second and third</u> input pins and a scalable plurality of <u>said</u>

<u>first, second and third</u> output pins, wherein individual input pins of said scalable plurality

of <u>said first, second and third</u> input pins can be iteratively coupled to individual output

pins of said scalable plurality of <u>said first, second and third</u> output pins based at least in

part on the user's operation on said one or more sources of multimedia content;

<u>a software-implemented compressor element coupled with the third switch and</u>

<u>configured to receive and compress the output uncompressed stream into a second</u>

<u>compressed output data stream; and</u>

<u>a feedback path between the compressor element and an input pin of the third</u>

<u>switch configured to provide the second compressed output data stream to the third</u>

<u>switch's input pin</u>.

-        **40.**   **(Currently Amended)** A multi-media editing system comprising:

a first software-implemented matrix switch comprising one or more <u>first</u> input pins and

one or more <u>first</u> output pins, the one or more first input pins being routable to the one

or more first output pins, the first matrix switch being configured to process one or more

uncompressed data streams and output an uncompressed <u>output</u> data stream;

a second software-implemented matrix switch comprising one or more <u>second</u> input

pins and one or more <u>second</u> output pins, the one or more <u>second</u> input pins being

routable to the one or more <u>second</u> output pins, the second matrix switch being

configured to process one or more compressed data streams and output a compressed

<u>output</u> data stream;

a third software-implemented matrix switch comprising multiple <u>third</u> input pins

and multiple <u>third</u> output pins, the <u>multiple third</u> input pins being routable to one or more

<u>of the multiple third</u> output pins, the third matrix switch being configured to receive [[an]]

<u>the</u> uncompressed <u>output</u> data stream from the first switch and [[a]] <u>the</u> compressed

<u>output</u> data stream from the second switch and process the [[received data]]

<u>uncompressed output and compressed output</u> streams to provide a single compressed

output data stream that represents a user-defined multi-media editing project in which a

user can construct said editing project by operating on one or more sources of

multimedia content that provide said <u>one or more uncompressed and said one or more</u>

<u>compressed</u> data streams; ~~and~~

one or more data structures associated with at least some of the <u>first, second,</u>

<u>and third</u> matrix switches and configured for use in programming the associated <u>first,</u>

<u>second, and third</u> switches to provide a routing scheme for routing <u>said first, second,</u>

<u>and third</u> input pins to <u>said first, second, and third</u> output pins,

wherein at least one of said first, second and third matrix switches comprises a

scalable plurality of said first, second and third input pins and a scalable plurality of said

first, second and third output pins, wherein individual input pins of said scalable plurality

of said first, second and third input pins can be iteratively coupled to individual output

pins of said scalable plurality of said first, second and third output pins based, at least in

part, on the user's operation on said one or more sources of multimedia content;

a software-implemented compressor element coupled with the third software-

implemented matrix switch and configured to receive and compress the uncompressed

output stream into a second compressed output data stream; and

a feedback path between the compressor element and an input pin of the third

software-implemented matrix switch configured to provide the second compressed

output data stream to the third software-implemented matrix switch's input pin.

57.   **(Currently Amended)** One or more computer-readable media having

computer-readable instructions thereon which, when executed by a computer, cause

the computer to:

provide a switch assembly comprising multiple software-implemented matrix switches,

individual matrix switches comprising one or more input pins and one or more output

pins, the one or more input pins being routable to the one or more output pins, the

switch assembly comprising:

a first switch configured to process uncompressed data streams to provide an

uncompressed output data stream;

a second switch configured to process compressed data streams to provide a

compressed output data stream; and

a third switch configured to receive both the uncompressed and compressed

output data streams and process the <u>uncompressed and compressed output</u> data

streams to provide a <u>single</u> compressed output data stream that represents a user-

defined multi-media editing project in which a user can construct said editing project by

operating on one or more sources of multimedia content that provide said

<u>uncompressed and said compressed</u> data streams, wherein at least one of said <u>first,</u>

<u>second and third</u> matrix switches comprises a scalable plurality of <u>said</u> input pins and a

scalable plurality of <u>said</u> output pins, wherein individual input pins of said scalable

plurality of input pins can be iteratively coupled to individual output pins of said scalable

plurality of output pins based, at least in part, on the user's operation on said one or

more sources of multimedia content; ~~and~~

<u>a software-implemented compressor element coupled with the third switch and</u>

<u>configured to receive and compress the uncompressed output data stream into a</u>

<u>second compressed output data stream;</u>

<u>a feedback path between the compressor element and an input pin of the third</u>

<u>switch configured to provide the second compressed output data stream to the third</u>

<u>switch's input pin; and</u>

program the switch assembly by defining a first grid structure containing data that

defines an association between the first switch's input pins, at least one output pin and

a time line defined by the editing project, and defining a second grid structure containing

data that defines an association between the second switch's input pins, at least one

output pin and the time line defined by the editing project.

-       **63.**   **(Currently Amended)** A multi-media editing method comprising:

providing a first software-implemented matrix switch comprising one or more <u>first</u>

input pins and one or more <u>first</u> output pins, the one or more <u>first</u> input pins being

routable to the one or more <u>first</u> output pins, the first matrix switch being configured to

process one or more uncompressed data streams and output an uncompressed <u>output</u>

data stream;

providing a second software-implemented matrix switch comprising one or more

<u>second</u> input pins and one or more <u>second</u> output pins, the one or more <u>second</u> input

pins being routable to the one or more <u>second</u> output pins, the second matrix switch

being configured to process one or more compressed data streams and output a

compressed <u>output</u> data stream;

providing a third software-implemented matrix switch comprising multiple <u>third</u>

input pins and multiple <u>third</u> output pins, the <u>multiple third</u> input pins being routable to

one or more <u>of the multiple third</u> output pins, wherein at least one of said <u>first, second</u>

<u>and third software-implemented</u> matrix switches comprises a scalable plurality of <u>said</u>

<u>first, second and third</u> input pins and a scalable plurality of <u>said first, second and third</u>

output pins, wherein individual input pins of said scalable plurality of <u>said first, second</u>

<u>and third</u> input pins can be iteratively coupled to individual output pins of said scalable

plurality of <u>said first, second and third</u> output pins based, at least in part, on the user's

operation on said one or more sources of multimedia content;

receiving, with the third matrix switch, [[an]] <u>the</u> uncompressed <u>output</u> data

stream from the first switch and [[a]] <u>the</u> compressed <u>output</u> data stream from the

second switch; ~~and~~

processing the received <u>uncompressed output and compressed output</u> data

streams with the third switch to provide a single compressed output data stream that

represents a user-defined multi-media editing project in which a user can construct said

editing project by operating on one or more sources of multimedia content that provide

said <u>one or more uncompressed data streams and said one or more compressed data</u>

<u>streams</u> data streams<u>, wherein said processing</u> the received <u>uncompressed output data</u>

<u>stream comprises:</u>

<u>compressing the uncompressed data stream received from the first switch using</u>

<u>a software-implemented compressor element coupled with the third switch; and</u>

<u>routing the compressed data stream that was compressed by the compressor</u>

<u>element to an input pin of the third switch.</u>

-    **70.   (currently amended)** One or more computer-readable media having

computer-readable instructions thereon which, when executed by a computer, cause

the computer to:

receive and process one or more uncompressed data streams with a first

software-implemented matrix switch comprising one or more <u>first</u> input pins and one or

more first output pins, the one or more first input pins being routable to the one or more

first output pins to output an uncompressed output data stream;

receive and process one or more compressed data streams with a second

software-implemented matrix switch comprising one or more second input pins and one

or more second output pins, the one or more second input pins being routable to the

one or more second output pins to output a compressed output data stream;

receive and process the uncompressed output data stream that is output by the

first switch and the compressed output data stream that is output by the second switch

with a third software-implemented matrix switch comprising multiple third input pins

individual ones of which receive data streams, and one or more third output pins

individual ones of which provide data streams, the one or more multiple third input pins

being routable to the one or more multiple third output pins to output, at one output pin,

a compressed data stream that represents a user-defined multi-media editing project in

which a user can construct said editing project by operating on one or more sources of

multimedia content that provide said one or more uncompressed data streams and said

one or more compressed data streams, wherein at least one of said first, second and

third matrix switches comprises a scalable plurality of said first, second and third input

pins and a scalable plurality of said first, second and third output pins, wherein

individual input pins of said scalable plurality of said first, second and third input pins

can be iteratively coupled to individual output pins of said scalable plurality of said first,

second and third output pins based, at least in part, on the user's operation on said one

or more sources of multimedia content, wherein processing the uncompressed output

data stream that is output by the first switch comprises:

compressing the uncompressed output data stream using the third switch;

provide the second compressed output data stream to the third software-

implemented matrix switch's input pin.

- **71.** **(Currently Amended)** The computer-readable media of claim 70, wherein

the instructions cause the computer to~~:~~

~~compress the uncompressed data stream output by the first switch using the third~~

~~switch; and~~

incorporate the compressed uncompressed data stream with the compressed

data stream that is output by the second switch to provide the compressed data stream

that represents the user-defined editing project.

4.   claims 33, 36, 40-43, 57-63, 65 and 70-75 are allowed.

5.   The following is an examiner's statement of reasons for allowance:

The prior art of record fails to teach neither singly or in combination the claimed

limitation of "compressor element coupled with the third switch and configured to

receive and compress the output uncompressed stream into a second compressed

output data stream and a feedback path between the compressor element and an input

pin of the third switch configured to provide the second compressed output data stream

to the third switch's input pin" as in claims 33, 36, 40-43, 57-63, 65 and 70-75.

6.   Any comments considered necessary by applicant must be submitted no later

than the payment of the issue fee and, to avoid processing delays, should preferably

accompany the issue fee. Such submissions should be clearly labeled "Comments on
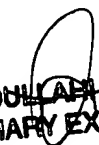
Statement of Reasons for Allowance."

7.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Hussein A. El-chanti whose telephone number is

(571)272-3999. The examiner can normally be reached on Mon-Fri 8:30-5:00.

        If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Ario Etienne can be reached on (571)272-4001. The fax phone number for

the organization where this application or proceeding is assigned is 571-273-8300.

        Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

Hussein El-chanti

April 10, 2006

ABDULLAH SALAD
PRIMARY EXAMINER